

C O N T E N T S

Brief History	Page 1
Control Plans	Page 2
Personnel	Page 3
Local Labor	Page 6
Training	Page 6
Organization	Page 6
Method of Control	Page 14
Equipment and Supplies	Page 14
Safety	Page 14
Progress Record by Camps	Page 31
Financial Statement	Page 32
Recommendations	Page 33
Organization Chart	Page 34

NARRATIVE SECTION INSECT CONTROL REPORT

Brief History

Following are a few highlights of the bark beetle epidemic on the Targhee National Forest:

1945: Targhee advised of bark beetle epidemic on Caribou National Forest. All rangers and field men were alerted and asked to keep a sharp lookout for beetle work during their field inspections. An area in the head of Elk Creek on the Swan Valley District was observed to be infested. A survey of this area was made and it was found to be in an endemic condition. A few infested trees were observed within the Hawley Gulch Working Circle near Hawley Gulch Ranger Station. These were treated by Ranger Foulger.

1946: Widely scattered new attacks were observed during the field season by the rangers on the Heise, Victor and Swan Valley districts. Further investigation clearly indicated the need for an extensive insect survey and funds were obtained for this work. The survey was made during October with forest personnel under the supervision of Lowell Woods. The results of the survey were 30,600 new attacks over approximately 32,300 acres of Lodgepole pine host type. During the winter, estimates and plans were made for control work to be done during the spring of 1947.

1947: On May 3, funds were allotted for control work and the job got under way immediately. Because of reduced appropriations, the overall strategy for the control work was revised and the following priority for work units established: The Hawley Gulch unit and South Victor unit would receive first priority. After the control work was completed in these units, we were to work as much of the Pine Creek unit as time and money permitted. This meant that no work would be done on the Swan Valley unit and only a portion of the Pine Creek unit would be worked. This plan was followed and resulted in treating 21,116 trees on 21,093 acres. Even though all of the known infestation was not treated, the control work was considered by the Bureau of Entomology as being successful as it reduced the potential threat of a serious epidemic that would have unquestionably resulted. Throughout the 1947 insect control program the methods employed in treating the trees were felling and burning and felling and sprinkling with an ortho mix. This method, while very thorough, was very costly and slow.

In the fall of 1947, the Bureau of Entomology conducted an insect survey of all the known areas of infestation in the Swan Valley, Victor and Pine Creek areas and the forest conducted a survey of the Hawley Gulch Working

Cirole. The results of this survey showed that on 40,400 acres there were 32,060 new attacks. Immediately following the survey, a small control program was carried on in the south end of Teton Basin and 1360 trees were treated that fall.

1948: Funds were allotted for this year's work well in advance of control operations. Plans were made to cover the entire infested area and work was under way by May 3 in some areas. Plans included the treating of 27,015 trees on 32,559 acres. Considerable more host type was discovered in late May which harbored a great number more trees. Plans were revised, additional camps sent in and more men mobilized to get this larger job completed. The final results showed 53,527 acres and 52,129 trees treated. After the fall insect survey was completed, the results showed that a successful control job was done. Included in the above numbers was a last minute hot spotting job in the Island Park country. This area was not thought to be extensive until after July 1 when further examination showed it to cover 450 acres and embracing 1,000 trees.

Control Plans

During the winter and spring, plans were made for the 1949 bark beetle control work. It was believed that sufficient funds would be available to cover the entire infested area on the forest. Because of the slowness of Congressional action, funds were not available until late in June. Plans were revised several times to adjust for the delay in receiving funds. On June 21, funds were allotted to cover a partial area of the total job. A plan had been made for a short period and this was followed.

It had been decided to work only the areas on the north end of the forest. These were the most threatening for increased spread and also they were in the heart of the most valuable timber. Consequently, three camps were set up for the following work units: Hotel Creek, Green Canyon-Antelope Flat and the Squirrel-Porcupine area. Work progressed somewhat faster than was anticipated and the Green Canyon camp was moved to Kirkham Hollow to clean up this small area.

Camp set up and procurement of equipment started on June 22. Training school for overhead was conducted on June 24 and the following day trees were treated in connection with training of the labor. Operations thus continued until July 12 when all camps were broken down as control work as planned had been completed. The general opinion was that the date was too late to economically move to any new areas.

The results of the 1949 spring program were 5,322 trees treated and 14,982 acres covered.

In early September, a request was made by the Regional Office for plans and estimates for a fall job. We submitted these and were authorized to proceed as we had planned.

We felt we could muster a good 30-man crew, although harvest activity was on in this area. With this, we proposed to treat the North Pine and West Pine units between September 12 to November 1, weather conditions permitting. On September 12, camp set up was started in North Pine and we commenced treating the 15th of that month. On October 15th, the camp was moved to West Pine, after which we encountered so much storm that it was felt we could not get West Pine done economically or safely. After several days of lay-offs, we started the camp breakdown on October 20.

The results of the fall program were 5,827 acres of host type covered and 3,433 trees treated. Detailed statistical data of the control program for each camp unit are listed separately in this report.

Personnel

Splendid cooperation was extended by the Regional Forester, all his staff and various supervisors in assigning competent overhead and obtaining equipment and supplies needed. Supervisor Daugherty followed the same policy and assigned a large percent of all regular personnel and guards to the job. It was only through this outstanding cooperation and assistance that this project was successful. Following is a list of the personnel from the Regional Office and other forests who were detailed to the Targhee Insect Control Project and a short discussion of their assignments while on this project. A very fine job was done by all detailers assigned to this project. In every instance they gave their best in cooperation and work to make this project a success. At no time did they complain or become dissatisfied. Personal letters of thanks were sent to each detailer and his respective forest.

Lowell Farmer - Period of detail June 6 to July 13. Farmer was detailed to this project as safety training officer. During the first few days of Lowell's detail, he prepared plans for training, developed his safety program and layed out problems for his training class. Because no funds were available, he then went back to Ogden. When funds became available, he returned to the forest and conducted an insect control training school for all overhead after which he continually followed up with on-the-job training in both control measures and safety program. He was allowed to develop his own program and excellent results were obtained.

Merrill Anderson - Period of detail June 23 to July 13. During the forepart of Anderson's detail, he was assigned to the Lyle Springs camp as a chief spotter until a younger man arrived for this job. He then was assigned as woods foreman and had charge of oil distribution. Anderson did a very good job in both assignments.

Max Fee - Period of detail June 29 to July 29. During Fee's detail to this project, he was assigned to the Lyle Springs camp as a chief spotter. In this capacity, Fee did a very acceptable job.

William D. Carringer - Period of detail June 23 to July 13. While assigned to this project, Carringer was assigned to the Hotel Creek camp in the capacity of chief spotter. His work was very satisfactory.

Joseph Peters - Period of detail June 23 to July 13. During Peters' detail, he was assigned to the Hotel Creek camp as a chief spotter. His services to us were very satisfactory.

E. Rex Naanes - Period of detail June 23 to July 13. During Naanes' detail to this project, he was assigned as a chief spotter in the Hotel Creek camp. His work in this capacity was very satisfactory.

Culver D. Ross - Period of detail June 23 to July 13. During Ross' detail to the insect control project, he was assigned to the Hotel Creek camp in the capacity of chief spotter. His services were very satisfactory.

Art Middleton - Period of detail June 23 to July 13. During Middleton's detail to the Targhee, he was assigned to the Hotel Creek camp in the capacity of chief spotter. His services were very satisfactory.

Everett Green - Period of detail June 23 to July 13. During Green's detail to this project, he was employed as a chief spotter at the Hotel Creek camp. His services were very satisfactory.

Elmo Holman - Period of detail June 23 to July 13. During Holman's detail to this project, he was assigned to the Hotel Creek camp in the capacity of foreman. His duties were mainly those of assistant camp superintendent. He had charge of the oil supply, routing of crews, etc., and assisting in camp records. His services were very satisfactory.

Mechanic Barker - Barker was detailed to the insect control work from the Salt Lake Base Shop as project mechanic. He circulated among all the camps and handled all of the automotive repair work.

Eugene Jensen - Period of detail June 23 to July 19. While on this assignment, Jensen worked in the St. Anthony office under the Administrative Assistant payroll and handling employment forms for personnel working on the insect control project. All time schedules were met for this type of work and an exceptionally good job was done.

The following Targhee personnel were assigned to the insect control work full time and remained throughout the entire job. Their assignments while on this work were as follows:

Harry Dunn - Dunn was one of our older guards on the forest and was assigned to the Spencer District. While on the insect control work, Dunn was assigned as supply officer for the project. He is well qualified for this work due to past experience in stores and commissaries. He handled the distribution of subsistence supplies out of the Ashton warehouse and acted as procurement officer for grocery items for which bids were not received.

Ernest Taylor - Ranger on the Victor District. During the spring work on this project, Ranger Taylor was detailed to Island Park to act as camp superintendent in charge of the Hotel Creek camp. In addition to this, he handled the recruitment of men and horses from the Teton Basin area. He also arranged transportation for men, horses and ortho from Teton Basin to Island Park. Taylor did an outstanding job on all the above phases.

He was again assigned to insect control work in September in charge of a 30-man oamp in North Pine Creek. He was also charged with recruitment, procurement of equipment, horses and supplies on this job. Here again he did a very outstanding job.

Edward C. Maw - Ranger on the Medicine Lodge Distriot. Maw was placed in charge of the Lyle Springs camp which consisted of 25 men. This was Maw's second year on the insect control job, having been detailed over here from the Salmon for the 1947 job. He did a very good job.

Joe Knotwell - Guard at Kilgore on the Spencer Ranger District. This was Knotwell's third year on the insect control project. He served as assistant camp superintendent at Lyle Springs. He was well qualified for the work and did an exceptionally good job.

Ray Sandretto - Forestry Aide from the Supervisor's Office. He was assigned as chief spotter in the Lyle Springs oamp during the spring job and his work was very satisfactory. In September, he was again assigned to insect control work in the capacity of foreman at the North Pine camp. In this job he was in charge of several treating crews and was responsible for oil delivery to these crews. He did a very good job in this position.

Eurt F. Rouse - Ranger on the Porcupine District. Rouse was in charge of the Porcupine camp which ranged from 10 to 15 men. This camp worked the Porcupine area by the hot spotting method.

Henry Thompson - Guard on the Victor Ranger District. Thompson was assigned as chief spotter in the Porcupine camp where his accomplishments indicated he did a very good job.

Neal D. Nelson - Assistant Forest Supervisor. Assigned to the insect control work as project superintendent of the spring job.

C. R. Melvin - Timber Staff Assistant. Assigned to the spring insect control work as assistant project superintendent and to supervise the fall control job.

John Barr - Assisted with payrolling, vouchering, personnel records, accounts and property. All deadlines were met and accounts submitted on time.

Glenn Petersen - Administrative Assistant in Supervisor's Office. Petersen was given the full responsibility for all the clerical work connected with the project. An outstanding job was done.

In addition to the above personnel assigned to the project, the following personnel contributed considerably to the organization and camp set up of the job: Otis Slavin, Ranger of the Ashton District; Ned D. Millard, Ranger of the Buffalo District; Carl J. Baird, Assistant Ranger of the Buffalo District; Waldemar Mueller, Ranger of the Rapid Creek District; Leo Fest, Ranger of the Swan Valley District; and Simon L. Cuskelly, Ranger of the Heise District.

Mrs. Tedda Chase and Mrs. Alice Moon contributed considerably in assisting with the clerical load.

Local Labor

This year, all of the labor recruited for the insect control work was obtained from the small communities surrounding the forest. Ordinary labor was relatively abundant for the spring work and very little turnover resulted. The fall work occurred at the same time as the local harvest, which resulted in fewer applicants, but we were able to get sufficient good labor who remained until the end of the job.

Training

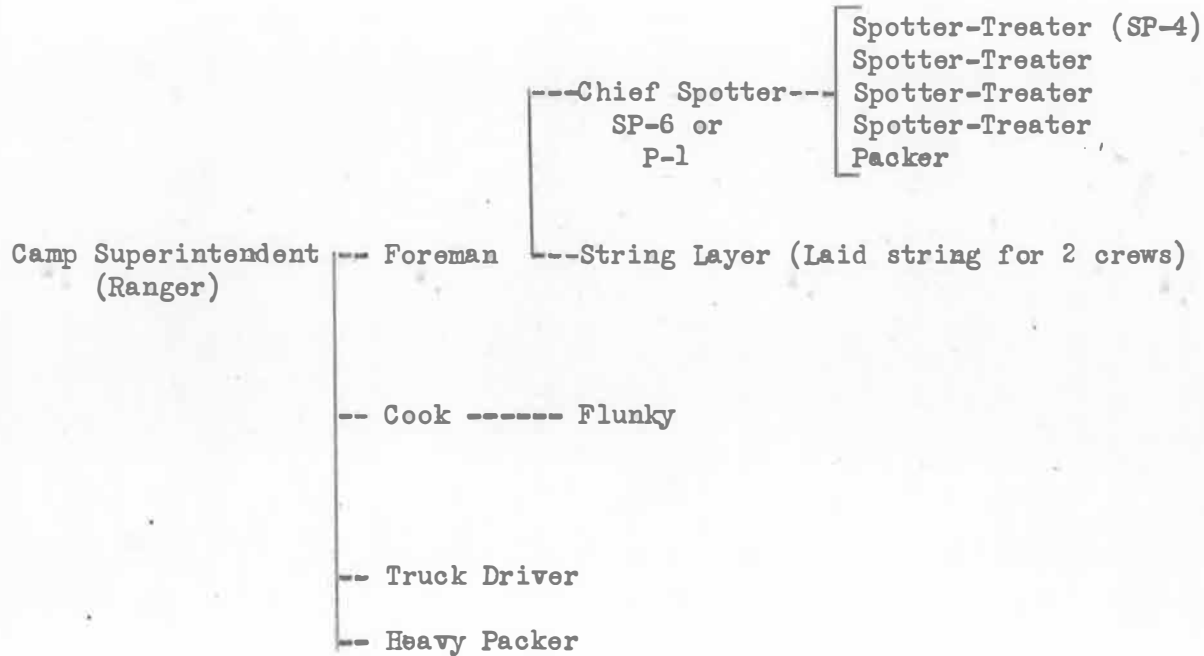
As shown in our report for last year, training given to the personnel used on the job is one of the most important phases of an insect control project. We cannot expect our men to do a good job unless they know how. We must therefore train our men in the job we want done and in the way we want it done. The importance of this cannot be overstressed.

This spring, the training camp for all overhead was held at the Buffalo Ranger Station under the able direction of Lowell Farmer. Since it was such a late time that our money was available, the training session was limited to one day with an immediate on-the-job follow up. Each chief spotter then used the first work day as a training school for his spotter-treating men.

The personnel on the fall job had all been on this work previously but were given on-the-job refresher training.

Organization

The following pattern was adopted for the individual camp organization. This was followed with the exception of those areas which were hot-spotted:



The number of crews assigned to each camp varied as to the amount of area and intensity.

The areas assigned to each camp were based more on topography and ease of handling, due to the late date of operation. We had originally planned all camps for the entire Targhee project to be 25-men or less per camp. Under the existing conditions, we had to make the Hotel Creek camp a 50-man outfit to get the job done in the short work period.

Working directly under the Project Superintendent but spending full time circulating between the camps was an Assistant Project Superintendent and a Safety Training Officer whose specific duties were as follows:

- (1) Assistant Project Superintendent - Assist the Project Superintendent in planning and organizing the project, recruiting men, distribution of equipment and supplies, camp moves and checking on quantity and quality of work at all camps.
- (2) Safety and Training Officer - Was given full responsibility to organize and put into effect a sound safety program. He was required to make safety hazard inspections of camps and crews on the job after which he was to follow up to determine if deficiencies were corrected. In addition to his safety work, he had full charge of the technical training for the project at the initial training session and on-the-job follow up.

As in the previous year, one mechanic was assigned to the project from the Salt Lake Base Repair Shop. This man handled all the repair work, preventive maintenance, lubrication and servicing of automotive equipment. This man circulated between camps and did all the service and repair work in the field. This arrangement worked very satisfactorily.

Our fall job, which consisted of only one camp, was carried on without any detailed assistance. Local labor was used for chief spotters.

Instructions to Project Personnel.

The following are sets of instructions to project personnel sent out at the start of the project. After these instructions were written, it was definitely decided to use a spotter-treater combination; therefore, the chief spotter's instructions were changed to include his responsibility for treating as well as spotting.

S
CONTROL - Targhee
Insects

St. Anthony, Idaho
June 23, 1949

CAMP BOSS - INSECT CONTROL

Instructions and Check List of Duties

The Camp Boss is in full charge of all men and operations in the insect control camp to which he is assigned. He has full responsibility for planning, organizing, and directing the men and activities in his camp. He will work under the Project Superintendent and will report directly to him.

For your convenience we have prepared instructions for your subordinates which may be used in any way you desire to help in informing them of their duties and responsibilities.

As a supervisor of men, it is your responsibility to: 1. Provide all your men with the tools or equipment needed for their job. 2. See that all men are trained and instructed in the use of these tools or equipment. Make sure that you both understand and are in agreement on what is wanted and the standards to which the job is to be done. 3. Follow up with sufficient inspection to determine that the work is being done as directed. Most men will do as good a job as they know how. Also, most men want to do a good job. It's your job to see that they do.

Don't assume your men know all about what you want done or how to do it. Even simple tasks can be dispatched with more efficiency if they are well thought out and organized.

Following is a check list of duties and specific instructions:

I. Camp

1. Construct and operate a clean orderly camp.
2. Look after the general welfare of your men. See that they are made as comfortable as possible under the existing conditions. Arrange their meals on time and see that they are well served.
3. Encourage cleanliness around camp. Provide what is needed. Make it convenient to keep things in place and orderly. Get things started off right and it will assist you throughout the entire project.
4. Follow up on all sanitation requirements.
 - a. See that the water supply is safe.
 - b. See that the latrine is cleaned daily and sprinkled with Chloride of Lime.

- o. Use DDT to keep down the flies.
 - d. See that your cooks keep the kitchen clean and that dishes are properly washed.
 - e. Have the men keep their tents clean and orderly.
 - f. Provide proper garbage disposal facilities.
5. See that food is properly stored. Vegetables should be placed in cooler, meat should be kept in shade and protected from flies.
 6. See that the men leave camp on time and are returned on time.
 7. Have equipment and tools ready.
 8. Plan their work a day ahead so they don't have to wait for your instructions.

II. Records

1. It is suggested that the Chief Spotter and Foreman keep time records for the men working under them. The Camp Boss should keep time records on cooks, truck driver and camp detail. (Special instructions for time reports are provided.)
2. The Camp Boss will maintain a daily progress record on the forms provided. You may require the Chief Spotter to maintain the Spotting record section and the foreman the Treating record section.
3. Each evening you should prepare a daily progress record (small form). This information will be obtained currently from you by Melvin and Nelson.
4. Property records will be kept for all equipment received and issued at the camp.
5. Supplies and Equipment.
The Supply Officer at Ashton (Harry Dunn) will do all the purchasing for the camps. All orders for subsistence supplies and equipment will be sent to him.

III. Spotting and Treating

As has been previously discussed with you, we will plan to cover the host type with a combination Spotter Treater Crew. Emphasis will be on the spotting.

We must be on the alert to make such modification of methods as are expedient, but which will give us the best quality and quantity of production.

(III. Spotting and Treating - Cont'd.)

Our time is very limited. We must make every minute count. Each day's work must be planned a day ahead to eliminate unnecessary and unproductive expenditure of effort.

The oil supply must be so organized that pumps are never out of oil. The success of the spraying method and entire project is directly keyed to this one item. We cannot fall down here.

GENERAL

Let's not accept any method or procedure that we are now using as being the last word. There may be better ways. If you have any ideas or suggestions, be sure and pass them on to us. If they sound reasonable, we'll try them out. We're always searching for better and cheaper ways to do the job.

I don't believe I need to stress the urgency of keeping this job in high gear. Our time is short and we are fighting against time. Right now the beetles appear to be in a more advanced stage than normal.

Although "Doc" Melvin and I will be working very close to the job, it is not our idea to usurp any of your duties and responsibilities as Camp Superintendents. We will be on hand to assist you in any way we can to keep things moving along and will refrain from adding any confusion to the situation.

There are several considerations which make this an important job. Let's give a good account of ourselves.

/S/ Neal D. Nelson

Project Superintendent

C O P Y

S
CONTROL
Insects

St. Anthony, Idaho
June 9, 1949

INSTRUCTIONS FOR FOREMAN - INSECT CONTROL

The Foreman will work directly under the camp boss.

His work will be confined primarily to the field, working with and coordinating the work of the individual pump crews. He must see that all treating crews are ready for work on time and that each has their specific instructions for their day's work before leaving camp.

He will plan for and assist in the proper supply of oil for the pump crews. Oil dumps should be located so as to cause the least possible travel by the packers when returning for refills.

He will assist the camp boss and safety officer in conducting an active and continuing safety program. He will keep the daily treating records for all treating crews working under him and keep the camp progress record posted up to date. He should keep the time reports for all personnel in the treating crews daily.

He will work with the camp boss and chief spotter in planning and preparing for the treating work. This will include the daily assignment of the individual crews to their strips or work areas. He will inspect all the work of the treating crews to make sure the trees are properly treated and that no trees are missed.

Additional assignments and instructions will be issued by the camp boss.

/S/ Neal D. Nelson
Project Superintendent

C O P Y

S
CONTROL
Insects

St. Anthony, Idaho
June 9, 1949

INSTRUCTIONS FOR CHIEF SPOTTER - INSECT CONTROL

The Chief Spotter will work directly under the camp boss and will be in complete charge of the spotting work in the camp. He will plan, organize and direct the activities of the spotting crew. He will have the responsibility of training all the spotters assigned to him. Any replacements needed should be requested from the camp boss.

He should keep the time records for himself and all members of his crew. He will prepare duplicate spotting records or maps needed in the treating work. He should maintain the daily progress record for the spotting work and keep the camp progress record posted daily.

It will be his responsibility to see that his crew leaves for work on time and is returned promptly after 5:00 P. M.

He should work in close harmony with the camp boss and foreman in planning the work for the camp.

/S/ Neal D. Nelson
Project Superintendent

Method of Control

The entire Hotel Creek area, part of the Green Canyon area, part of Kirkham Hollow and North Pine were controlled by the spotter-treater combination method. String lines were laid independent of crews and in many cases one string layer was able to lay string for at least two crews. String lines were laid 4 chains apart. A conventional spotting crew was set up of 1 chief spotter and 4 spotters. Each spotter covered a one chain strip. A packer then followed this crew with "Ortho mix" and spray equipment. When infested trees were found, the crew stopped and changed to a treating crew. After trees were treated, the crew again formed a spotting crew, etc.

Spray equipment on the entire job consisted of "Little Giant" stirrup pumps, which were again highly successful. Some difficulty was again experienced with the weakness at the handle on these pumps.

Some areas in Green Canyon, Antelope Flat and the Porcupine front were not spotted. The areas were flown and spots of heavy infestation noted from the air. Follow up on the ground located these areas more closely. Treating crews then went into these areas and one man spotted for two 2-man pump crews.

Equipment and Supplies

We again used R-1 camp equipment. The length of time for the job being very short, we dispensed with frames for the living tents. The mess kitchens, however, we constructed with a wood frame and canvas top. All treating equipment was procured through Central Purchase.

Vehicles

The Region purchased a fleet of "Dodge" power wagons of which we had eight last spring and four on the fall job. We used these pieces of equipment almost entirely for the transportation of crews and oil to the job. They were fitted with seats that could be folded up when hauling loads of oil or equipment. This vehicle is an ideal piece of mobile equipment for this type of project. For the heavier hauling jobs on main roads and highways, 1-1/2 ton trucks were used.

Subsistence and Supplies

Previous to allocation of funds, bids had been sent out for staple groceries. After final approval of appropriations, time was so short that the job was reduced to such a point that only a part of the bids was accepted. Perishable supplies were purchased in St. Anthony and Ashton. The entire job of handling supplies and purchases was handled by Harry Dunn out of the Ashton warehouse. A very good job was done and reasonable prices were obtained.

Safety

The 1948 insect control project proved that the assignment of a staff officer to the safety job paid off. We therefore assigned a staff

officer to this job again to follow the same general plan of 1948. Lowell Farmer was assigned as Safety and Training Officer. Following is his report on this safety program, also copies of special instructions.

C O P Y

SAFETY AND TRAINING

TARGHEE BARK BEETLE CONTROL PROJECT

June 24 - July 12, 1949

Training

Because of the shortened project and the value of every minute which could be spent on productive work, training was greatly streamlined from that originally contemplated. It was not neglected but was sandwiched into the project. On-the-job training by foremen and chief spotters was emphasized.

The first formal training session was June 24 at Buffalo Ranger Station. The attached outline was followed closely after a brief introductory talk by Neal Nelson, Project Superintendent. He emphasized the importance of doing a good, safe job within the short period allotted.

Project overhead and string layers who received the initial training were:

Stringlayers

Malcolm Stahl
Russell Griffith
Bruce Colwell
Bob Nelson
Cash Cooper
Toivo Sini

Chief Spotters

Ray Sandretto
Rex Naanes
Dale Carringer
Merrill Anderson
Culver Ross
Everett Green

Woods Boss

Elmo Holman

Entomologists T. T. Terrell and Leslie Orr spent part time with the trainees.

Emphasized during training was the fact that each overhead would have to pass on the material to his own men and be in effect a continuous on-the-job trainer himself.

Henry Thompson and Max Fee, who arrived on the project later, were given on-the-job training.

In addition, the picture "Fighting The Tree Killer" was shown to all personnel the first week of the project, with appropriate discussions on treating techniques and safety following.

Sufficient checks were made in the field to assure high quality work. The project booklet was distributed to every worker. Its value was very apparent.

Safety

The fundamentals of the project safety program as shown in the outline were discussed in detail at the preliminary session as well as in subsequent sessions, both with foremen and crews on the ground.

It is safety resolved to its simplest form. However, no safety program can be effective without the wholehearted interest and support of all project personnel. I have not had the pleasure of being on a single project before where everyone was so safety conscious from the top down and from the bottom up. The fact that there were no lost-time accidents on this project is, believe me, no accident. From Supervisor Daugherty's letter to the employees, a copy of which is attached, to the time the last kapok was unloaded at Heise, "safety" was a living part of the project. The spirit and leadership were there long before I came on the scene. Were one to list those interested in safety on the Targhee, it would read like a forest directory. All I can say is that it's an innovation and a pleasure to see a gang like the Targhee in action.

The Hotel Creek Camp, being the largest, had, in addition to its Monday morning safety meetings and woods crew safety meetings, a camp safety committee comprised of a cook, a truck driver, a packer, a chief spotter, the camp boss, and a member from each crew. This committee met Wednesday evenings and drew up a list of hazards according to the outline attached. That is - suggestee, suggestion, responsibility, date to accomplish and date accomplished.

In the smaller camps with one and two crews, this middle safety committee was not used. It is an over-refinement in smaller camps of twenty men or less. All smaller camps, the Porcupine, the Lyle Springs, and the Kirkham Hollow had the Monday morning safety meetings and crew safety meetings in which everyone connected with the camp had the opportunity to participate.

The greatest hazard on the project was speed and the rapidity with which camps, men, horses, and trucks were thrown together in a short time. As an example, the Kirkham Hollow Camp moved from Lyle Springs, set up, and supper was on the table at 5 o'clock p.m. During the process improper tools were used. One man was stung by a hornet and one was bumped just beneath his eye, with a tent pole. Nothing serious happened, but the set up was there.

The Targhee had camps moving in and setting up the day after word of the project was received. This same kind of speed characterized the entire project. Everyone was on the ball. There were hazards but the important point is, everyone recognized them.

A sample of hazard notes is given in the following copies of the Hotel Creek Camp safety committee's report. These were presented at Monday morning safety meeting and responsibility assignments made:

Safety Meeting held in Hotel Creek Bug Camp, June 29 at 8:00 P. M.

Nominations for Chairman and Secretary were held. Golden Allred was nominated for Chairman and John Parks for Secretary. Both elected unanimously.

Present were: Golden Allred, John Parks, Blaine Beardall, De Loy Beasley, Jerry Jones, Blain Butler, Duff Ross, Elmo Holman, Lowell Farmer, Ernie Taylor and Ralph Thompson.

Chairman asked for suggestions or incidents that happened or occurred with each crew.

<u>Name</u>	<u>Suggestions</u>	<u>Responsibility</u>
Taylor	Careless draining of hose and nozzle.	Crew
	Breaking of equipment (pumps)	Crew
Ross	Shoes in good repair. Packers careless with unloading of ortho.	Crew Packer
	Tools to be returned to proper place after using.	Everybody
	Cover horses good with rubber blanket.	Packer
Butler	Leaky cans.	Packer & Crew
	Clean hands after spraying unless using gloves.	Crew
	Establish playground.	Overhead
	Sharpen hatchet away from blade and use handle on file.	
Farmer	Make sure equipment is in good repair before leaving camp.	
J. Jones	Park vehicles in proper place in camp and off the road out of camp.	Drivers
	Axe throwing to stop.	Crew
Beardall	Avoid windfalls and snapping of dry twigs.	All
Beasley	Avoid walking on logs, stone, pipes properly installed.	Crew
Farmer	Clean tree of snags before checking and only one man to a tree at a time.	Crew

<u>Name</u>	<u>Suggestions</u>	<u>Responsibility</u>
	Fire arrestors on all stove pipes.	Crew
Allred	Each lantern needs a shade.	Crew
	Improper lighting of lamps.	Crew
Thompson	Stop running to meals - creates dust.	Crew
	Be on time to meals. (2 warning bells)	Crew
Taylor	Firearms to be U.S.F.S. sealed.	
	Showers to be installed.	
	Fumes of ortho burning is poisonous - Crew don't smoke near ortho or have a fire. Be sure cigarettes are out.	

Camp Inspection

Ropes and other overhead equipment should be above head of tallest man in tent or completely out of the way. (Chief spotters).

Install mail box, stove, in office, bench planned. (Office).

Crew's Tents - Shades on lamps; lanterns out of way; proper installation of stoves with bank of mineral soil, chimney jacks on tent and stove, and spark arrestor. Rakes to clean tents of debris. Tools in tents to be returned to proper places. Garbage disposal can for garbage instead of stove box. Tents to be surveyed or mended because of holes and rips in seams. Park private cars in place provided. Nail sticking through screen in mess hall.

Meeting over at 9 P.M.

Golden Allred, Chairman
John Parks, Secretary

Safety Meeting held in Hotel Creek Bug Camp, July 6, 1949 at 7:30 P. M.

Present were: Golden Allred, John Parks, Blaine Beardall, De Loy Beasley, Jerry Jones, Blain Butler, and Ralph Thompson.

Absent: Truck driver and packer.

Attending meeting were: E. Taylor and Elmo Holman.

Visitors: Mr. M. G. Hiett, Mr. Don Rose, Mr. W. J. Robb and Mr. Neal Nelson.

Chairman asked for suggestions or incidents that happened or occurred with each crew.

<u>Name</u>	<u>Suggestions</u>	<u>Responsibility</u>
Parks	Packing ortho too close to spotters.	Packers
	Spraying ortho in eyes.	Crew
Beardall	Smoking in bed.	Crew
	Shoes in bad condition.	Individual
	Running rabbits with hatchet.	Individual
Beasley	Running down hill and jumping over windfalls.	Crew or Safety Man
	Truck driver starting truck before equipment and men were properly secured.	Truck driver
	Chain must be fastened to many people in truck - 12 men to truck.	Truck driver
Jones	Two chopping on one tree.	Crew or Safety Man
	Scuffling in trucks.	
Butler	Worn out sheath cutting finger.	E. Taylor Crew
Allred	Reported no accident. Truck driver was seen kicking cans out of power wagon. Must be demonstrated. From this suggestion it was arrived at that 12 men and a driver would constitute a load.	Safety Man & Crew Chief
Holman	Watch for falling trees and windfalls.	

Repeat Suggestions

Allred	Be careful when cleaning connector from hose to nozzle. Pump back-firing. Improper carrying of pump. Table not being returned. Shower must have axe rack, and cars in improper places.	Crew
Beardall	Watchful in cleaning dead twigs away from trees.	

Camp Inspection

Station tent - light improperly installed. Power pump in pathway. Knife found in pole of supply tent. Supply tent in improper order. Axe with broken handle. Must notify proper authority when equipment is broken or damaged. Supply tent needs straightening up. A bed was destroyed when a man fell asleep while smoking in same. Location markers must be replaced on camp road. A rig pole was burned by stove pipe. No fire arrestor on same. Jeep sags or placed on ground. More notices on bulletin board. Lantern must be connected by wire from handle to rope. Globes and shades missing from some. Do not neglect fire in stoves. Check fire before leaving tents. Shovel has been in tent for a week. Also in same tent stove improperly installed and needs a fire arrestor. Fire box lacking, in end tent. Extra ink not placed in supply tent. Should have fire protection for camp. A fire drill was recommended.

Golden Allred, Chairman
John Parks, Secretary

The above type of program is recognized by all safety men as the ultima. It comes from and is made by the workers, management providing encouragement and opportunity. Management also made sufficient follow-up to see that the recommendations were honored and carried through.

/S/ Lowell Farmer
Lowell Farmer
Project Safety and Training Officer

C O P Y

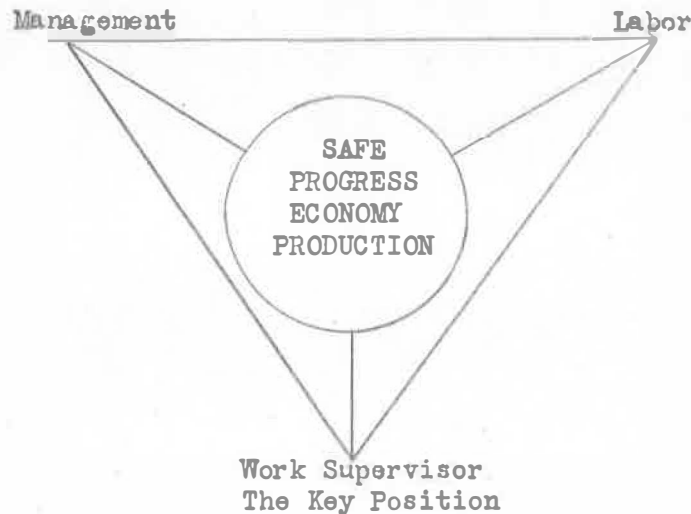
K
SAFETY
General

St. Anthony, Idaho
June 24, 1949

SAFETY PROGRAM
TARGHEE INSECT CONTROL PROJECT
SPRING - SUMMER - 1949

THE OBJECTIVE - NO LOST TIME ACCIDENTS.

In order to accomplish this project on schedule, safely and efficiently, it will be necessary for every man to recognize and understand the simple basic elements of safety in production. They are shown by a triangle.



HOW THE TRIANGLE WORKS

MANAGEMENT - Provides the opportunity and devices for safety.

WORK SUPERVISOR - Conducts program and provides on the ground leadership.

LABOR - Makes safety program.

The success of the program hinges on the Work Supervisor. He is the key man working between management and labor.

How does he do the job?

1. He calls periodic on the job meetings to accomplish the following purposes:
 - a. Stimulate discussion on safety, importance, (stressing that safety of individual comes first). Tells of practices or devices in use on other crews.
 - b. Accepts and records safety suggestions from crew members.

- c. Posts record of meeting in camp with names of men making suggestion, date. A column is also added showing action taken or condition corrected and date.
- d. Points which men can correct are done on the spot. Points which require special devices or action beyond the means of the crews are submitted to Camp Superintendent for action.

A sample safety meeting write-up follows:

Safety meeting held in _____ area, June 21 at 1:00 P. M.

Present were _____, _____, _____, _____,

Mark Campbell, crew leader, asked for suggestions from the group as to what hazards the work had presented.

John Mandell said he had nearly cut himself several times by carrying his hand axe in his hand and climbing over logs. The crew agreed and decided the best way to remedy this hazard would be to sheath axes when on the move.

Mike Romanoff said the mosquitos distracted him when going through the woods and he had fallen down while trying to kill them. Campbell said he would get some mosquito lotion for everybody who wanted it.

Joe Boyle said the packer's horse had kicked at him when he was using the pump. The packer said he would keep the horses away from the men at all times and watch the horses so he wouldn't get kicked himself. He said horse flies made the horses a little meaner than usual. Some horse fly repellent would help. Campbell agreed to order some.

Meeting over 1:20 P. M.

Suggestions

<u>Name</u>	<u>Suggestion</u>	<u>Responsibility</u>	<u>Date Corrected</u>
Mandell	Sheath hand axes when on move and avoid axe cuts.	Crew Agreed to keep hand axes sheathed.	June 21
Romanoff	Mosquito lotion to avoid distraction when working.	Camp Superintendent to obtain lotion and give to crew leader.	June 23 Lotion given to crew leaders.
Boyle	Keep horses at safe distance from crew to avoid horse kicks. Use fly repellent to reduce hazard	Camp Supt. Packer	June 21 June 23 Horse fly repellent obtained and given to crew leader for packer to use. June 24, Repellent applied to horses as needed.

2. He is alert to every phase of the job which affects crew safety.
 - a. In camp he looks to the comfort, cleanliness, and sanitation of his crew by seeing that camp standards are maintained. This is by direct suggestion to the camp superintendent.
 - b. In travel he insists on proper vehicle maintenance, safety procedure when riding men and transporting equipment and materials.
3. Most important of all, he exercises safety leadership and stimulates interest in safety by his men at every opportunity. He is ready to accept and act on their suggestions and in this way to let them build and maintain their own safety program.

This is a safety program that works from the bottom up and from the top down - the only kind that will accomplish our objective - No Lost Time Accidents. A safe job is no accident.

The Designation of Responsibility For This Program:

1. Management

- a. Will provide clean, sanitary camps with all the comforts and conveniences practicable.
- b. Will insist on a clean, safe kitchen and clean, well prepared food. Fly control.
- c. Will provide for standard vehicular servicing and repair.
- d. Will provide for safe storage of vehicles, oil, tools, equipment, and materials.
- e. Will provide practical fire fighting materials for camp, strategically placed. Also fire screen for all stove pipes and safe fire boxes for stoves.
- f. Will exercise safety leadership and set an example. Will conduct periodic safety meetings for overhead following the above described plan.
- g. Will accept plausible safety suggestions as developed by crew members and submitted by crew leaders and take the necessary action without delay.
- h. Will be alert to the safety aspects presented by every job, no matter how small.

2. Crew Leaders

- a. Will provide safe conduct for men and self to and from work.
- b. Will provide opportunity for, and conduct on the job safety meetings. Will record and act on all safety suggestions according to above plan.

- c. Will exercise safety leadership continuously and be ever on the alert to pick up hazards before they cause accidents.

3. Workers

- a. Will make their safety program and follow up to see that it is carried out.
- b. Will be ever watchful for new hazards and present them to the crew leader, when observed.
- c. Will assume full responsibility for their own and fellow workers' safety, being constantly on the alert for danger.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE



TARGHEE NATIONAL FOREST

K
SAFETY
Programs

St. Anthony, Idaho

Dear Sir:

You are now working with an organization which last year had an outstanding safety record. I would like to talk with you about that record but since it is not practicable to discuss it with you in person this letter is given you instead.

Last season on the "bug job", although there were over 10,000 man days worked, there was not one lost time accident. I am proud of this record and so should each individual who worked on the project be. It was the men who worked on the job who made that record.

My interest in safe working conditions and practices is two fold. I like to see high production; injured and incapacitated employees mean low production. More important, however, is each individual's welfare. Injuries mean discomfort, pain and loss of earning power for the victim of an accident. It is in your and your family's interest to keep that earning power at its highest level.

I hope that you will consider yourself a committee of one to prevent any sort of accident to yourself or fellow worker. On jobs where there are large crews there will be a safety committee. Get on this committee if you can but in any event help them out.

It will be our policy to dismiss accident makers or careless workers from the job. The one who has charge of your work has been instructed to take this action and must do so to redeem his own responsibility. On all forest work last year we had one lost time accident. Let's beat last year's record and, in addition, reduce minor injuries even though they don't cause loss of time.

Very truly yours,

CHAS. I. DAUGHERTY
Forest Supervisor

C O P Y

K
SAFETY
1949 Program

St. Anthony, Idaho
April 28, 1949

RANGERS, STEVE OSBORNE & STAFF

Last year our goal was "No Lost Time Accidents". Let's work toward attaining that objective for 1949.

The 1948 "bug job" with over 10,000 man days worked had no lost time accidents. Our goal for the bug job can well be "Equal Our 1948 Safety Record" but -- reduce minor accidents which carry a potential of lost time.

Although the Targhee's 1948 record was not perfect, I have been curious to determine what it was that made it as nearly 100% as it was.

In delving about, I find that all personnel have been interested and concerned. The program was personalized. Each employee was made to feel that he was a participant in the safety campaign and that he had something at stake.

Along this trend of thinking, I wish to quote from a talk given by Dr. J. L. Rosenstein, consulting Psychologist and Associate Professor, College of Commerce, Loyola University, Chicago, to the National Safety Council.

"But every man should be taught. You should talk to every man and educate and train him in terms of safety as it relates to him -- safety on his specific job, safety on his specific operation, safety in his specific department, safety as it refers to him. You know what happens with people. You get a crowd together and those in it can be rowdy as the dickens and hard to handle. Yet if you take any member of that crowd and pull him over and talk to him, you cannot believe that he is one of that crowd. He is a totally different person. You are reaching him in person - in his heart and mind. Teach safety in groups, but teach men individually.

It is management's prerogative to recognize that safety is the workers' program and should not be a management program in which workers are asked or begged or cajoled or threatened or forced to cooperate. It is and must be a worker's program in which management will cooperate by offering complete financial and technical help. Safety is a worker's problem financially, emotionally, physically and socially. It is management's problem only financially."

As I understand last year's program, it was in fact a worker's program. I believe we should continue to encourage worker participation and carry on from where we left off last year. There is always room for improvement and progress.

Let's beat last year's record and join the 100% club.

/S/ Neal D. Nelson

NEAL D. NELSON
Safety Officer

C O P Y

K
PERSONNEL - Targhee
Training

St. Anthony, Idaho
June 22, 1949

TARGHEE INSECT CONTROL PROJECT
Spring - Summer - 1949

The objective: To secure adequate training of all overhead and men on the job to prosecute the work safely for maximum production at required standards within the time available.

This program has three sections. They will be conducted by the Project Training Officer.

This Section Inside - 8:00 to 9:30 A. M.

1. A brief explanation of the project. Importance, where, and why, safety program - 30 minutes.

Show film "Fighting the Tree Killer" - 20 minutes. Explain what the control procedure on this job will be and explain crew organization and how they will work - 40 minutes.

This Section Outside - 9:30 to 12 Noon

2. Examination of trees without hand axes. Travel to training area - 30 minutes. With group select at random 20 to 30 infested trees, explain external evidence of attack, one-sided attacks, old attacks and peculiarities of attacks. Mark trees by numbered tag stating decision, treat or not treat.

12:00 to 1:00 - Lunch

3. 1:00 to 1:30. Travel to training area. Examine tagged trees with hand axes showing brood, parasites, etc., and discussing reasons for treating or not treating as case may be, 1:30 to 2:30 P. M.

Demonstrate proper treating techniques, showing team work on crews, team work between pump and nozzle man. 2:30 - 3:00 P.M.

Explain crew line-up on the ground by demonstration. 3:00 - 3:15.

Form crew and send them through sample string lane checking on trees selected for treating and method of treatment. 3:15 - 4:30.

Explain that on this job every overhead is a trainer and must see that no man goes to work without training.

Standards must be maintained, production must be maximum. There must be no lost time accidents and a minimum of harmless accidents.

Materials Needed:

Section 1. Inside - 8:00 A. M. to 9:30 A. M.

Film, easel w/paper and crayon, map of project, training booklets, samples of standard project records, progress maps, project safety plans for distribution, statements of duties and responsibilities for distribution.

Section 2. Outside Training Area - Hotel Creek.

9:30 to 12 Noon - Pencils, tags and string.

Section 3. Outside Training Area - Hotel Creek.

1:00 P.M. to 5:00 P.M. - Hand axes, 2 stirrup pumps w/all accessories needed for oiling trees, ortho mix.

PROGRESS RECORD BY CAMPS

	Hotel Creek	Green Canyon	Porcupine	Kirkham Hollow	North Pine	West Pine	TOTAL	Insect Survey
Trees Treated and Spotted	3264	1088	537	433	3379	54	8755	<i>Camp report</i>
Acres Spotted	7082	3092	4150	658	5687	140	20809	
Gallons of fuel oil mix	7224	2570	975	1100	9399	155	21423	
Man days spotting & treating	603	149	121	73	500	39	1485	
Man days Camp	171	72	17	40	146	90 $\frac{1}{2}$	536 $\frac{1}{2}$	
Man days Project	774	221	138	113	646	129 $\frac{1}{2}$	2021 $\frac{1}{2}$	
Horse days	250	75	13	24	368	150	880	
Meals	2484	690	314	290	1990	332	6100	1379

7379

STATISTICAL DATA

Trees Treated Per Man Day (Treating only)	5.4	7.3	4.4	5.9	6.8	1.38	5.9	
Trees Treated Per Man Day (Entire Project)	4.2	4.9	3.9	3.8	5.2	.4	4.3	
Gallons ortho mix per tree	2.2	2.4	1.8	2.6	2.8	2.9	2.4	
New attacks per acre	.46	.35	.13	.66	.58	.39	.42	
Percent time Spotting & Treating	78	67	88	65	77	30	73	
Percent time Camp & Supr.	22	33	12	35	23	70	27	

FINANCIAL STATEMENT AS OF 12/23/49

	<u>056</u>	<u>048</u>	<u>Total</u>
Post Control Check	\$ 4,620.53		\$ 4,620.53
Equipment Use	11,534.23	783.56	12,317.79
Horse Hire	1,855.58	198.83	2,054.41
Travel	2,667.52	96.70	2,764.22
Subsistence	3,565.00	988.14	4,353.14
Salaries & Wages	18,666.28	4,515.49	23,181.77
All Other	5,201.90	162.64	5,364.54
Supplies & Materials	18,754.22	651.41	19,405.63
	<u>\$ 66,865.26</u>	<u>\$7,196.77</u>	<u>\$ 74,062.03</u>

Total Expenditures	\$ 74,062.03
Less Post Control Check Cost.....	<u>4,620.53</u>
	69,441.50
Groceries used but paid for pre- viously.....	<u>600.00</u>
	70,041.50
Less residual value.....	<u>21,961.95</u>
	48,079.55

Cost Per Tree (8755 trees).....	5.49 (Insect Funds)
Total contributed time.....	2350.29
Cost Per Tree (8755 trees).....	.27 (Contributed Time)
Total Cost Per Tree.....	5.76

Our records also show the following: 7479 meals were served at a cost of \$0.582 per meal from above actual cost. It is estimated that we had \$600.00 more value of subsistence supplies on hand at the beginning of the job than at the end or subsistence cost of \$4953.14. (Cost includes cooks' salaries) -- .662 per meal.

We also paid 1360 horse days and the cost per day including feed, horse shoes, shoeing, etc., was \$1.51 per day. This figure is much higher than progress record shows due to the fact that horses had to be paid for on Sundays and days of standby when not needed.

Residual value includes the large amount of ortho, R-1 camps including replacement costs and miscellaneous other equipment purchased from this year's funds.

Recommendations

1. We again found on the Targhee that the small camp of 25 men or less was the most efficient and got the best production per man day. Often times it is necessary to use a larger camp but whenever possible the number in a camp should be not over 25 men.
2. We still consider the Little Giant Stirrup Pump a success although we believe the handle should be reinforced. This has been discussed in previous meetings.
3. We believe that the spotter-treater combination method employed on the Targhee was highly successful. We used this method in North Pine where new attacks per acre were .58 with success. We are yet in doubt as to just how high an intensity this system can be used economically since North Pine has been our highest infested large area. No doubt in areas of heavy down timber and steep areas it would be better to spot before treating in order to facilitate better routing of horses with oil.

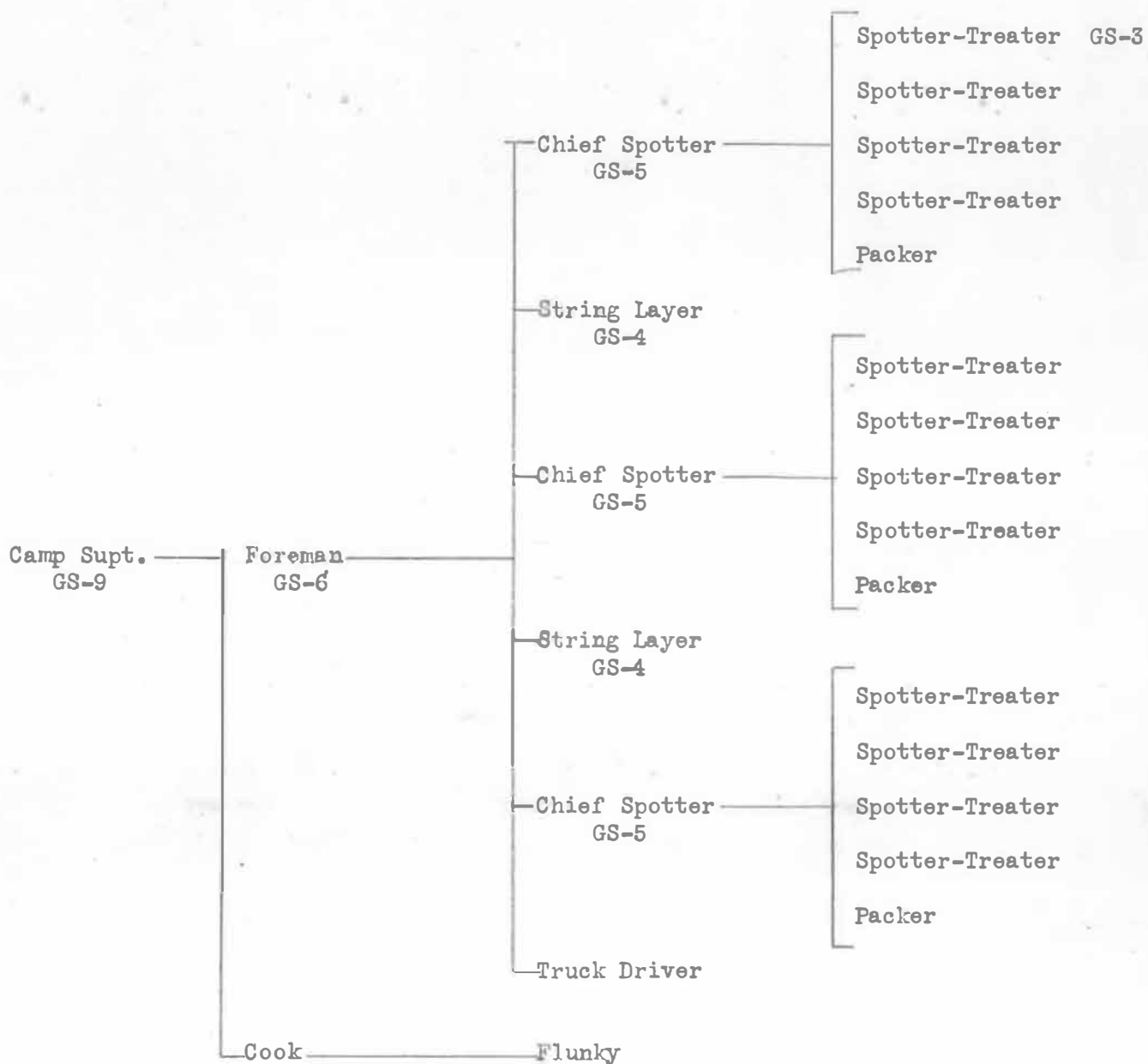
The following is a suggested camp organization for this type of work.

Respectfully submitted,



C. R. MELVIN
Forester (T. M.)

ORGANIZATION CHART
25 MAN INSECT CONTROL CAMP



P I C T U R E S
Snapshots Taken of the Insect Control Project
Targhee National Forest
1949



Personnel Hotel Creek Camp



Personnel Lyle Springs Camp



Spotting-Treating Crew During Lunch Hour



Kirkham Hollow Mess Hall



Hotel Creek Camp



Kirkham Hollow Camp
Living Quarters



Camp Superintendent Taylor
Inspects the Field Work



Unpacking packhorse loaded with "ortho-mix"



Taking Compass Bearing for String Laying



Laying String In Advance of
Spotter-Treater Crew



Spraying Standing Trees With "Little Giant Pump". (Pump man should be facing tree.)



Spraying Standing Tree



Camp Superintendent at His Radio



Power Wagon Loaded With
Spotter-Treating Crews



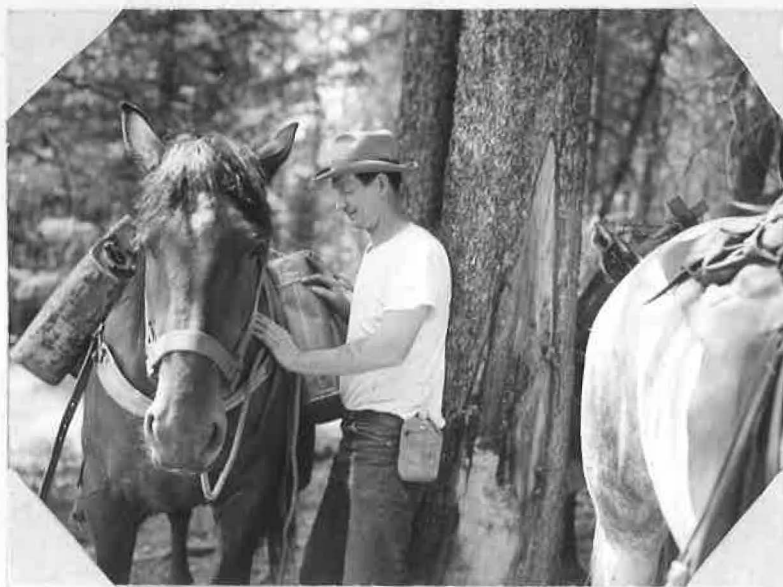
Safety Meeting at Hotel Creek Camp



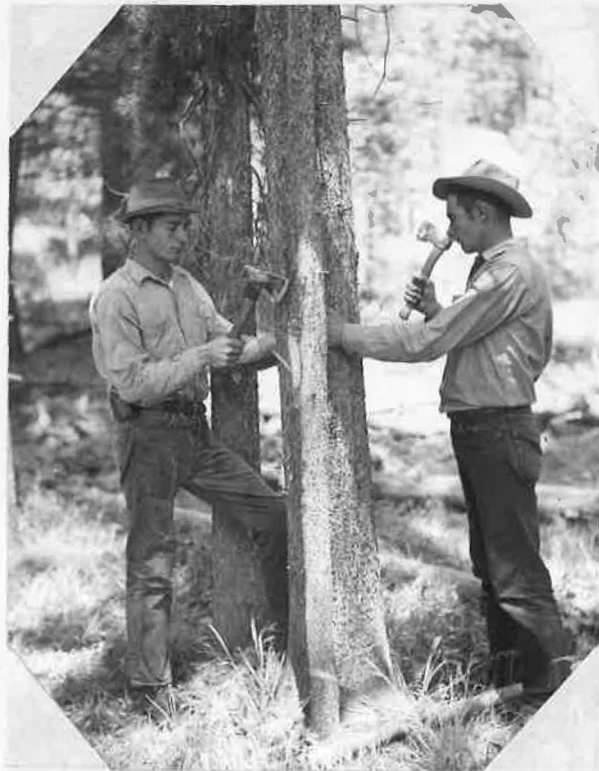
Safety Meeting at the Hotel Creek
Camp



Example of Falling Hazard on the Job



Do Not Get Between Loaded Horse & Tree



Showing Hazard of Two Men
Blazing Same Tree



On the Job Crew Safety Meeting



Mechanic Services Equipment in the Field